

TRANSFORMING YOUNG SCHOOL LEAVERS AND MATURE UNEMPLOYED INTO SKILLED IT WORKERS – THE IT ASSISTANT TRAINING IN HONG KONG

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Abstract : This paper attempts to review the “IT Assistant Training Program (ITAT)” in bridging the gap between IT manpower need and the employability of young school leavers and mature unemployed in Hong Kong. It will inspect ITAT in a detailed manner in the aspects of planning, collaborations, curriculum development, administration, pedagogical considerations and job placement. The effectiveness of the program, in terms of job fulfillment and added value of IT knowledge, will also be discussed. To conclude the paper, the value of continuity and the possibilities of evolution of the program will be highlighted.

THE GAP

In recent years, a gap, which is growing wider and wider, is observed between the supply and demand of IT manpower in Hong Kong.

In the information era, the supply of IT manpower is of paramount importance for Hong Kong to turn into a knowledge-based and high technology society. The recent boom of E-commerce further poses serious demand in the manpower with Web/Internet know-how. Although such need in IT manpower had been prevailing for quite a number of years as reflected by the bi-annual IT Manpower Survey conducted by the Vocational Training Council (VTC), the recent situation can be both distinguished in terms of the number and the spectrum of shortage. According to the recent report submitted by the PriceWaterHouseCoopers for the “Manpower and Training Needs of The Information Technology Sector” which was commenced by the Education and Manpower Bureau (EMB) of the Hong Kong Special Administration Region (HKSAR), it is predicted that there will be around 17,000 and 56,000 (high-end estimates) sub-degree level manpower shortfall in the coming 5 and 10 years, respectively. At the same time, as we are marching into the Internet/Web era, with the penetration of IT into every aspect of life, the varieties of IT jobs had been diversified greatly into job opportunities across various education levels, with many of them are suitable for secondary school leavers who are not successful in pursuing further studies. This is well different from the need of mainly degree graduates IT professionals in the past.

So this is just one side of the gap - the demand side.

The availability of the IT jobs is just one side of the story. The labour market in Hong Kong is now facing a very critical challenge. Many of the workers with skills in traditional industries lose their jobs when Hong Kong is turning its economy from industry-based to finance and service-based in the past years. The problem is even more severe for young school leavers. According to government statistics, more than 20,000 participants in the Hong Kong Certificate of Education Examination (HKCEE) got the result of failure in all attempted subjects. Also, about 25 to 30% of these young school leavers are unemployed.

So this is another side of the gap - the supply side.

Ironically, it is apparently that there exists a mis-match between the IT manpower shortage and the supply of abundant manpower of young school leavers.

BRIDGING THE GAP WITH SPECIAL FOCUSED TRAINING – IT ASSISTANT TRAINING PROGRAM (ITAT)

In order to bridge the apparent gap for betterment of the society, the EMB of HKSAR initiated a 10-week full time IT training for F.3 to F.5 school leavers and unemployed mature people. If we believe academic results are not the only yard-stick in measuring the capabilities of people, ITAT will help in bringing some concrete paths for those who have aptitudes in IT. The pilot phase runs from Feb to July 2000 with 300 trainee places. The course contents cover topics in Office Applications, Basic Web Development, E-commerce Operations, Multimedia Production, Internet Support, Networking and Soft Skills. The graduates are suitable for assistant level jobs in IT like IT Assistant, Internet Support, Junior Technician and Web Assistant. The course is basically free. Trainees have to pay a deposit of \$1,000 which is refundable upon 90% attendance and pass in the overall assessment.

THE STEERING COMMITTEE

The ultimate purpose of ITAT is bridging the gap as mentioned. To make the program tackle right, a steering committee with EMB officials, program implementers (VTC and ERB) and industry representatives was formed. Several meetings were held in 4th quarter of 1999 and after further consultation with more industry representatives, the course structure (Appendix I) was formulated in Jan 2000. IT Training & Development Centre of VTC (ITTDC/VTC), with bunch of experience in IT Training since 1986, was designated as the Program Manager of the whole program responsible for major course development, quality assurance, train the trainers, admission, administration and implementation. The steering committee continues working in course review and placement monitoring. In retrospect, this triangle formed with government, employers and training providers is a good system for optimization of the planning and monitoring of the whole program.

APPLICATION AND ADMISSION

The announcement of ITAT in Dec 1999 resulted in overwhelming response. Over 3200 applications were received. This reinforces again the belief of IT prominence in Hong Kong. The first batch of trainee places is 300. In order to select the right candidates, and also in line with common practice in IT courses, aptitude tests were conducted in Feb 2000. The applicants with satisfactory test marks were invited for subsequent interviews. Each board of interviewers consists of a representative from the industry and another one from the training providers. Major aim of the interview is to find out the attitude, maturity and the commitment of the trainees. This is very important in view of ITAT is placement-tie. At last, 300 applicants were selected and allocated to various classes from Feb to Jul 2000. The classes were formed with best homogeneity in education level and age to lead to best pedagogical effect.

COURSE DESIGN, ADAPTATION AND TRAINER CONSIDERATIONS

Course contents were adapted specially for ITAT. The technicality and concepts were specially tuned to suit for the education level of F.3 to F.5. A team of over 10 training officers of ITTDC/VTC was deployed for the course development. Outside parties (e.g. YWCA, CityU Consultancy Ltd, independent consultants) were responsible for development for some of the topics like Soft Skills, Preparation for IT and Multimedia topics. About 50% of the time is dedicated for practices and laboratory exercises. Intensive training sessions were arranged for the trainers. Selection of trainers is based on technical knowledge and most importantly, the teaching experience and skills. After all, ITAT is not a very technical course and the successful conveyance of the contents/skills to the trainees in the limited time of 10-week intensive training is of most important concern. The course is designed to be conducted in Cantonese, but with handout and software mainly in English. It is considered that IT works involve heavily the familiarity with English in the technical terms, manuals and working environment. We would like the trainees to “feel comfortable”, though may be not very competent, in English so as to help them to fit in the working culture of IT. As a supportive measure, more abundant time in lessons was planned for discussion on English terms and a glossary with Chinese translation was prepared for some of the commonly used IT terms.

THE RUNNING OF ITAT

As expected, the running of ITAT faces hurdles to be overcome.

Intensity is one of the major hurdles. Learning rhythm for secondary students is seldom like ITAT - 9 to 5 for Mondays to Fridays and half day for Saturdays. The trainees may get difficulties in settlement of knowledge and reinforcement of skills. It was observed that they need some time to adapt to such mode of intensive training. After several weeks, the situation becomes better especially when the course reaches some longer, practical oriented modules like Basic Web Authoring. In view of the situation, tutorial sessions on every Tuesday and Thursday evening were added. Such sessions provide a more relaxed environment for the trainees to review the contents of the modules and foster a more amicable relationship between trainers and trainees.

Language is another barrier. In fact, the trainees paid their efforts in finding out the explanations for various English terms. The whole trend resembles the issue of intensity very much - it is observed that the trainees are more adapted, though still feeling very challenged, towards the middle of the course. They agreed that English orientation can help them fitting in IT jobs, but at the same time it's tough for them to cope with.

Difference in learning paces. With classes of over 20 trainees and various education level and age groups, it is inevitable that there is variance in learning paces within a class or among classes. Constant feedback from trainees' evaluation forms for each module, observation and appropriate follow-up by trainers, review meetings held with trainers are ways for the modulation and optimization.

Overall speaking, the running of such pilot program should be put in a very dynamic context for instant adjustment and rectification. The role of Project Manager is thus of paramount importance in such context.

ASSESSMENT

The assessment is 2 fold. Every Saturday, there is a multiple choice based test to assess the basic but practical knowledge of the trainees. A review session will be held before the test. It is useful for the recapitulation of the contents of the modules especially in such intensive training for trainees of F.3 to F.5 education level. At the end of the course, there is a final practical test of 2 hours. Trainees have to produce a “not so complex” Web site within the time limit using techniques in HTML, Web Authoring Tool and some resource files in animation and images. It is quite a challenge for them as some integration technique has to be employed in the time-limited test. Most of the trainees are very serious in preparation for this final assessment. They are willing to stay behind after lessons to join the tutorial sessions for revisions.

JOB PLACEMENT

The first 3 classes of 66 trainees finished at early May 2000. Among them, 60 were successful to graduate. Another about 119 trainees graduated (among 124) throughout May and early June 2000. The final batch of 110 graduated in Mid July 2000. The placement rate up till now is over 50%.

The placement process is the ultimate verification of the program. It is believed that the market can accommodate junior IT workers, or workers who know basic useful IT knowledge in computer applications, Web/Internet skills good for a modern office environment. It is observed that such market need really exists. The only question is how big is the market and the growing rate of it ? Some more concrete survey data may help in more understanding on this aspect.

In view of the importance of placement, there is a 3-day Soft Skill module covering topics in human communications, job seeking and communication skills. Such techniques are introduced, practiced and reinforced through vivid case study, role-play and games. In terms of support and facilitation, 3 Placement Officers were employed to assist the trainees in job seeking. Well before the graduation, information of ITAT was sent out to potential employers through chambers of commerce, various associations and by reference to databases. Counseling and job matching was also carried out. All graduates get a free email account and a login for ITAT Internet based forum for receiving job information and experience sharing.

The graduates entered the market in many job positions : Internet Support Officer, IT Assistant, Junior Technician, Clerk (IT knowledge needed), Web Designer, Web Assistant, Network Engineer Trainee, etc. The salary ranges from HK\$5,000 to \$12,000. Much of the knowledge in ITAT can serve as the foundation knowledge in their jobs. For instance, concepts/terms in Internet networking helps in the work of Internet Support Officer and Web Authoring knowledge will help in Web Designing jobs. When we met with the graduates (they came back quite frequently for job applications and chatting), we always encouraged them that stepping into the IT field needs some dedicated effort - the knowledge learnt in ITAT is just a beginning for stepping in, and constant upgrade through lifelong learning is the right attitude to take.

There are quite a lot of exciting and encouraging cases. Ah Lai was one of the trainees of F.3 education level. He had some working experience in Real Estates Agency and sales before joining ITAT. His commitment and learning attitude in the course was well appreciated by the trainers. Immediately after graduation, Ah Lai was employed by a telecommunication company in Internet Support with monthly salary over \$10,000. Originally the job needs qualification of F.5 minimum, preferably F.6 or higher. It was Ah Lai's effort and the market need which make the case come true. When I met Ah Lai and talked about networking, broadband and TCP/IP, his fluency in such topics gained through a week of internal training impressed me very much. Getting the right

attitude, Ah Lai will become a real Internet Support professional in not a very long time.

We plan to issue questionnaires to the graduates after they graduated for half a year to see how they are going on with their endeavours. The summary of such on-going survey will give more reflections for considering future direction.

THE DIRECTION

The government has secured the fund for 1000 more trainee-places per year for 2000/01 and 2001/02. The course structure was renovated to have an assessment of incremental on-going project in Web site development for better integration of skills learnt. Some more tools and streams were added like Hardware Support Stream. More Chinese translation of terms is also incorporated.

To benefit more people, some of the modules were (and will be) transformed to Web-based mode. This anytime, anywhere and self-paced mode can lead to more participation in the program. However, care must be taken to ensure the effectiveness of the new mode of learning, including adequate face-to-face seminar/tutorial support, warm-up sessions for adaptation to Web-based self-learning mode, suitable motivation and ample practical sessions. Relevant tests needed to be developed for formal and standardized assessment of the participants. The timely establishment of the IT Skills Assessment Centre serves such purpose.

The whole meaning of the program still lies in the need of the market. Relative to the training side, the employers of the industry and owners of the SMEs are expected to be more aware, as time goes time and with more appealing awareness programs available, of the importance of IT in their business and start their steps in trying to employ some IT Assistants in their office.

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